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EXHIBIT A

REDACTED INVENTION DISCLOSURE FORM

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INTEL INVENTION DISCLOSURE

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It is important to provide accurate and detailed information on this form. The information will be used to evaluate your invention for possible filing as a patent application. When completed, please return this form to the **Legal Department at JF3-147**. If you have any questions, please call **264-0444 or 264-1476.**

1. Inventor: Wolochow (Last Name) Peter (First Name) (Middle Initial)
 Phone 503-264-7370 M/S: JF3-144 Fax # 503-264-1414
 Citizenship: USA WWID 10025142
 Home Address: 3620 SW 60TH Place City Portland State OR Zip 97221-1277
 Group: (e.g. TMG, NBG, CEG) IAG Division Name SRG Subdivision PTE
 Supervisor* WWID Phone 503-264-7370 M/S: JF3-144

 Inventor: Mandera (Last Name) Sandip (First Name) H. (Middle Initial)
 Phone 503-264-3527 M/S: JF3-144 Fax # 503-264-1414
 Citizenship: India WWID 10648945
 Home Address: 1705 SW 11th Ave., Apt. 804 City Portland State OR Zip 97201
 Group: (e.g. TMG, NBG, CEG) IAG Division Name SEG Subdivision PTE
 Supervisor* Peter Baker WWID 10060413 Phone 503-264-8960 M/S: JF3-144

(PROVIDE SAME INFORMATION AS ABOVE FOR EACH ADDITIONAL INVENTOR)

2. Title of Invention: Automatic Handoff of services in handheld devices using UDDI

3. What technology/product/process (code name) does it relate to (be specific if you can):
 Automatic Handoff of services, UDDI

4. Stage of development (i.e. % complete, simulations done, test chips if any, etc.)
 Flow-chart, Pseudo-code

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~~INTEL LEGAL TEAM~~

5. (a) Has a description of your invention been, or will it shortly be, published outside Intel:
 NO: X YES: _____ If YES, was the manuscript submitted for pre-publication approval? _____
 IDENTIFY THE PUBLICATION AND THE DATE PUBLISHED: _____

 (b) Has your invention been used/sold or planned to be used/sold by Intel or others?
 NO: X YES: _____ DATE WAS OR WILL BE SOLD: _____

 (c) Does this invention relate to technology that is or will be covered by a SIG (special interest group)/standard/ or specification?
 NO: _____ YES: X Name of SIG/Standard/Specification: Universal Description, Discovery and Integration

 (d) If the invention is embodied in a semiconductor device, actual or anticipated date of tapeout? N/A

 (e) If the invention is software, actual or anticipated date of any beta tests outside Intel N/A

6. Was the invention conceived or constructed in collaboration with anyone other than an Intel blue badge employee or in performance of a project involving entities other than Intel, e.g. government, other companies, universities or consortia? NO: X YES: _____ Name of individual or entity: _____

7. Is this invention related to any other invention disclosure that you have recently submitted? If so, please give the title and inventors: N/A

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PLEASE READ AND FOLLOW THE DIRECTIONS ON HOW TO WRITE A DESCRIPTION OF YOUR INVENTION

Please attach a page to this form, DATED AND SIGNED BY AT LEAST ONE PERSON WHO IS NOT A NAMED INVENTOR, to provide a description of the invention, and include the following information:

1. **Describe in detail what the components of the invention are and how the invention works.**
2. **Describe advantage(s) of your invention over what is done now.**
3. **YOU MUST include at least one figure illustrating the invention. If the invention relates to software, include a flowchart or pseudo-code representation of the algorithm.**
4. **Value of your invention to Intel (how will it be used?).**
5. **Identify the closest or most pertinent prior art that you are aware of.**
6. **Who is likely to want to use this invention or infringe the patent if one is obtained and how would infringement be detected?**

***HAVE YOUR SUPERVISOR READ, DATE AND SIGN COMPLETED FORM**

DATE: 7/21/05 07 SUPERVISOR: _____

BY THIS SIGNING, I (SUPERVISOR) ACKNOWLEDGE THAT I HAVE READ AND UNDERSTAND THIS DISCLOSURE, AND RECOMMEND THAT THE HONORARIUM BE PAID

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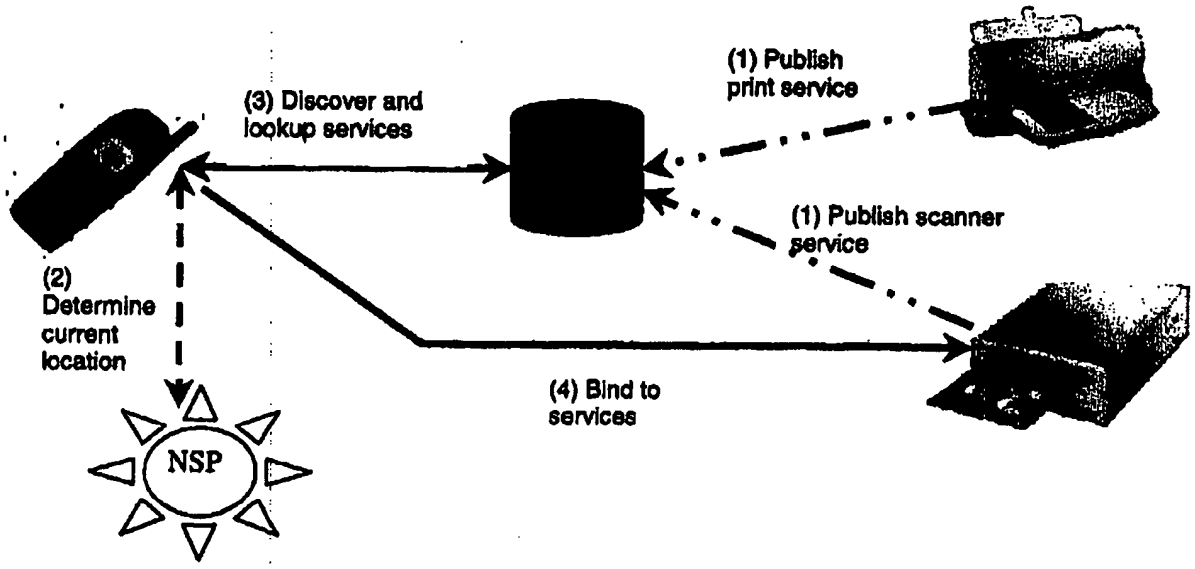
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1. Describe in detail what the components of the invention are and how the invention works.

Problem: Mobile users need the ability to automatically detect services available on the network and use those services without undertaking loading of software applications/drivers or requiring manual intervention every time they change their location. For instance, a user with a cellular phone may want to connect his cellular phone to a printer service available in his office. However, when the cellular phone user reaches his/her home, he/she may want to print to the printer in his/her home office without undertaking configuration updates or driver installations.

Solution: The proposed invention describes a scheme to automatically detect services available within the location of the mobile user and use those services. It is assumed that a wide variety of corporations have published their services to Universal Discovery Description and Integration (UDDI) repository (hereafter referred to as UDDI). It is also assumed that end user of the mobile device has configured the mobile device with the service capabilities he/she would like to have on his/her mobile device. When the end user of the mobile device powers the mobile device, it queries the Network Solution Provider (NSP) to determine its current location. It should be noted that the location could be a WAN-Cell location or a GPS location. (Nokia's cellular phone 6310 uses a similar General Packet Radio Services (GPRS) to determine the location of the cellular phone.) Also, the device could employ other techniques to determine its current location. Upon determination of its current location, the device interrogates itself to discover the services that have been requested by the end user. Using the knowledge of the current location and services requested, the mobile device queries UDDI to discover and lookup requested services within that geographic location. If more than one service provider is available, the device may arbitrarily select a service, use other criteria as specified by the end user or prompt the end user to select the service provider. Upon determination of the service provider, the mobile device will seamlessly bind to the service provider. Upon successfully binding with the service provider, the service would be available for the end-user of the mobile device.

The mobile device will have a software program that would periodically determine the location of the device, perform tasks of discovery and lookup of services within UDDI and bind to the services in real time. The figure below shows a schematic representation of the above-mentioned tasks. The numbers in the parentheses indicate the order of the flow of events:



2. Describe advantage(s) of your invention over what is done now.

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Current Limitations:

Currently, no technology is available using UDDI that allows for transparent hand-off of services based on location.

Advantages of the proposed invention:

The proposed invention removes the above-mentioned limitation by using UDDI or a similar repository for discovery and look-up of services. It allows for transparent hand-off of various services requested by the end-user without forcing the end-user to install the software or drivers every time he/she changes his location.

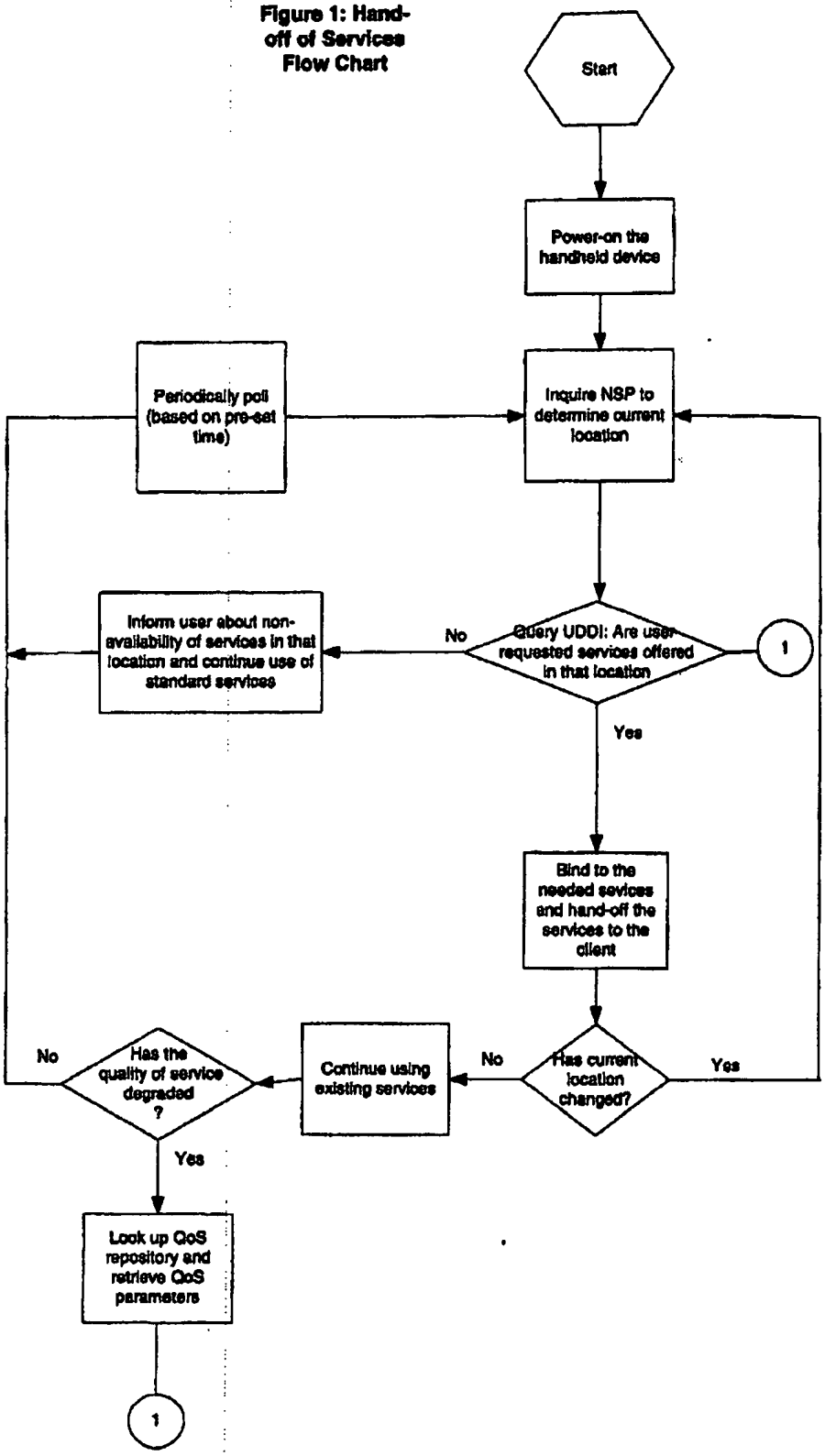
3. YOU MUST include at least one figure illustrating the invention. If the invention relates to software, include a flowchart or pseudo-code representation of the algorithm.

The figure below shows the proposed algorithm for invention:

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Figure 1: Hand-off of Services Flow Chart



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4. Value of your invention to Intel (how will it be used?).

Intel Corporation can greatly benefit from the proposed invention by licensing of the technology to Independent Software Vendors (ISVs), OEMs and service providers. In addition, Intel Corporation could lower equipment costs by allowing more general-purpose devices that can move between sites.

5. Identify the closest or most pertinent prior art that you are aware of.

Current research shows that there are no known inventions for hand-off of services using UDDI

6. Who is likely to want to use this invention

Any Independent Software Vendor (ISV), OEM or service provider is likely to use this invention. Some member companies of UDDI.org would like to accelerate adoption of UDDI by marketing and advertising of web services and mobile services by encouraging ISVs, OEMs and service providers to use this technology.

***HAVE YOUR SUPERVISOR READ, DATE AND SIGN COMPLETED FORM**

DATE: 5/7/04 SUPERVISOR: _____

BY THIS SIGNING, I (SUPERVISOR) ACKNOWLEDGE THAT I HAVE READ AND UNDERSTAND THIS DISCLOSURE, AND RECOMMEND THAT THE HONORARIUM BE PAID

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